



Vegetation Management Plan
Wild Springs Solar, LLC

Prepared for
Wild Springs Solar, LLC
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I. Goals and Objectives

Wild Springs Solar, LLC (“Wild Springs”), a wholly owned subsidiary of Geronimo Energy, LLC (“Geronimo”), a National Grid Company, is considering the development of the Wild Springs Solar Project (“Project”), a photovoltaic (“PV”) ground-mounted solar energy project on private land in Pennington County, South Dakota that will generate up to 128 megawatts (MW) of energy. Wild Springs has developed this Vegetation Management Plan (“Plan”) to guide site preparation, installation of prescribed seed mixes, management of invasive species and noxious weeds, and control of erosion/sedimentation. The goal of this Plan is to establish vegetative cover that complies with all permits and regulations. The establishment management is designed to continue for three years, with long-term maintenance continuing for the remainder of the Project.

This document is intended to be a working document. Revisions will be made as new information is obtained with respect to vegetation management, site characteristics, and availability of management practices at the time of procurement of services.

II. Vegetation Installation Plan

After the solar panels and other infrastructure are installed, a range land seed mix developed for the Project in coordination with the Natural Resources Conservation Service (NRCS) (Appendix 1) will be installed as described in the proposed planting plan for the site (in development). A wet mix has also been developed that should be used in areas with hydric soils or areas anticipated to hold water such as drainage basins (Appendix 1). It is possible Wild Springs could implement a vegetation management practice that uses sheep as grazers. Therefore, a grazing seed mix has been developed for the Project and is also presented in Appendix 1. All plant material must be installed as instructed, with regard for the time of installation, as described below. Any exceptions must be discussed with Wild Springs, and the Contractor shall receive written authorization for any changes prior to the start of work.

All seed mixes must adhere to the specifications described in the Plan and must meet the requirements of the South Dakota State Seed Laws and Regulations. To meet South Dakota NRCS standards, the Array Mix grass seed must originate from North Dakota, South Dakota, Nebraska, Montana, Wyoming, Minnesota, or Iowa. The Array Mix forb and legume seed must originate or be grown in North Dakota, South Dakota, Nebraska, Montana, Wyoming, Idaho, Washington, Oregon, Minnesota, Wisconsin, Iowa, Alberta, British Columbia, Manitoba, Ontario, or Saskatchewan. The plant species shall be native to the county where the site is located. Species shall be true to their scientific name as specified. Seed tags or nursery confirmation of the order must be provided to Wild Springs prior to installation. Any species eliminations, substitutions, or source origin exceptions must be approved by Wild Springs prior to installation. If planted in the spring, seeds shall have been properly stratified and/or scarified to break seed dormancy. All legumes shall be inoculated with proper rhizobia at the appropriate time prior to planting.

The protocol for installing the seed mixes is dependent on the time of the completion of construction. If construction is completed in spring, allowing for seeding between the time when the soil is free of frost

and in a workable condition but no later than June 30, seed mixes shall include 20 pounds per acre pure live seed (PLS) of oats (*Avena sativa*) as a cover crop. If construction is completed in summer, allowing for seeding between July 1 and August 15, the site shall be seeded immediately with 15 pounds per acre PLS of oats and 15 pounds per acre PLS of annual wheat (*Triticum aestivum*) to stabilize the soil and prevent erosion. In the same year, the seed mixes shall be installed as a fall dormant seeding (after November 1 but before the soil starts to freeze) with no additional cover crop added. If construction is completed in late summer or early fall, allowing for seeding between August 16 and October 31, the site shall be seeded immediately with 20 pounds per acre PLS of winter wheat to stabilize the soil and prevent erosion. In the same year, the seed mixes shall be installed as a fall dormant seeding with no additional cover crop added. If construction is completed in late fall, allowing for seeding after November 1 but before the soil starts to freeze, seed mixes shall include 30 pounds per acre PLS winter wheat to provide a cover crop for the following year. If agreed to by both Wild Springs and the Contractor, a spring seeding the following year can be substituted for a fall dormant seeding after a late fall completion of construction. If a cover crop has already been installed during the calendar year, seed mixes must be installed the same year with a fall dormant seeding.

Seeding may be conducted with a seed drill (preferred) and/or by broadcast seeding; the Contractor shall evaluate the site and determine which technique will produce the best results. However, seed installed into a previous cover crop or other vegetation must be installed with a seed drill. Prior to installation, seed shall be divided into two equal parts. The first half shall be installed in one pass, and the second half installed in a second pass (perpendicular to the first pass, where possible). If broadcast seeding is used, gentle raking of seeded areas may be needed to ensure good seed-to-soil contact.

III. Vegetation Management Tasks

After the land is cleared and the infrastructure is installed, a range of invasive plants will take advantage of the disturbed soil and germinate across the site. For the purpose of this Plan, “invasive plants” refers to both non-native species and native species that grow in an invasive manner or have the potential to negatively affect the development of planted native species and the success of the project. This list includes noxious weeds as designated in statute by both the State of South Dakota and Pennington County (Appendix 2). These weeds must be managed effectively during the first three years to ensure that native species are given the opportunity to flourish. Accordingly, Wild Springs will implement the Pennington County Weed & Pest Noxious Weed Management Plan (Appendix 4). The care taken in the first three years after installation strongly determines the quality of the resulting plantings. The work done during this initial period is referred to as the “establishment phase”, while management after that period is called the “perpetual maintenance phase”.

A. Establishment Phase

The first three years of vegetation management are a concerted effort to remove invasive vegetation from the site while also helping the planted native vegetation establish. If possible, grazing during this time should not occur. If grazing must occur, stocking should be light so that native plants can develop root systems that will enable them to survive future continuous grazing at higher stocking rates. Grazing during the establishment period may favor some invasive plant species, requiring more frequent monitoring and greater weed control efforts than if grazing were not occurring. Additional invasive species control, if required, will consist of mechanical or chemical methods, or a combination of the two, as needed to achieve desired outcomes and comply with the Wild Springs Pennington County Weed & Pest Noxious Weed Management Plan (Appendix 4). General tasks described below will be applied as directed, while other management techniques will be used only if required by the unique conditions at the Project.

1. General Tasks for Managing Vegetation

Establishment Year 1. The first year of establishment is focused on consistent invasive plant control on a site-wide basis. Mowing during the first year should prevent invasive plants from adding new seeds to the soil and begin to exhaust the soil seed bank (a process that often requires several years to complete). From June 1 of the first establishment year, site-wide mowing to a height of 6-9 inches shall occur whenever vegetation reaches a height of 18-24 inches. Care shall be taken during the nesting season (April 1 to August 1) to not destroy the nests of upland grassland birds.

Repeated mowings may produce a buildup of organic thatch, which discourages the development and persistence of diverse native vegetation. In order to help prevent thatch buildup onsite, either mowing shall be conducted with a flail-type mower to mulch the cut vegetation, or the site shall be hayed so that cut vegetation is removed. A swing arm specifically designed for mowing under solar panels is recommended for cutting beneath panels, but spot-mowing with brush saws, weed whips, and similar equipment is also permitted. It may be possible to coordinate with Wild Springs to adjust the orientation of the panels to increase the ease of mowing, but the Contractor should not depend on this coordination to complete its work. Any other techniques must be approved by Wild Springs prior to the start of work. Mowing equipment shall be cleaned prior to use on site to prevent the introduction and spread of invasive and non-native species. This mowing regime will prevent annual and perennial weeds from flowering and setting seed, prevent weeds from shading out the solar panels, and help control woody plant growth onsite. Additionally, noxious and perennial weeds shall be treated by spot-herbiciding, as described below, to prevent roots from resprouting.

Establishment Year 2. The second year of establishment continues invasive plant control but generally employs more targeted techniques. Site-wide mowing to a height of 6-9 inches shall occur when vegetation height reaches 18-24 inches. Care shall be taken during the nesting season (April 1 to August 1) to not destroy the nests of upland grassland birds.

Spot-mowing may be employed to treat specific problem areas as needed. Noxious and perennial weeds shall be treated with spot-herbiciding at least twice, with the focus on achieving the required performance standards (described below).

Establishment Year 3. In the third year of the establishment phase, invasive plant control should consist of spot-herbicide to control the remaining small patches of persistent weeds. Efforts should be focused on achieving the required performance standards (described below). Additional onsite treatment with spot-mowing or hand weeding can be employed at the discretion of the Contractor.

2. Prescribed Treatment for Common Invasive Species

Every SEF will express a suite of invasive plant species determined by the makeup of the seed bank and the seed inputs from the surrounding environment, so management must be flexible and respond to the specific needs of the Project. This Plan describes common techniques to manage a variety of invasive plants and common weeds growing in South Dakota, but not every technique will be required. In the establishment period, monthly evaluations of the plantings during the growing season (May to September) shall be conducted to determine the appropriate treatment techniques to use and the timing of those treatments. Management techniques for five categories of weeds are described below.

The Contractor is required to have the botanical expertise to correctly identify plant species and know the difference between species that must be removed and similar native species being established.

a. Annual Weeds

Annual weeds include all unwanted species that grow for a single year, set seed, and die.

Common annual weeds encountered on wind energy facilities include grasses like barnyard grass (*Echinochloa crus-galli*), cheatgrass (*Bromus tectorum*), and foxtails (*Setaria* spp.), and broadleaf weeds like lambsquarters (*Chenopodium* spp.), smartweeds (*Polygonum* spp.), and black nightshade (*Solanum nigrum*) (Clay, 2013).

The most important purpose and result of treating annual weeds is preventing seed production. Beginning around June 1, the site shall be mowed as described above to prevent annual weeds from flowering and setting seed. Repeated mowings, however, may produce a buildup of organic thatch, which discourages the development and persistence of diverse native vegetation by changing soil nutrient composition and keeping the soil cool. Thatch favors cool-season forage and turf grasses and many species of agricultural weeds. Raking, baling, and removing cut vegetation or using a flail mower can reduce thatch build-up.

b. South Dakota Department of Agriculture Noxious Weeds

The South Dakota Department of Agriculture maintains a list of noxious weeds for the state, and additional lists of weeds for Pennington County, all of which must be controlled to comply with state regulations (Appendix 2). All species of noxious weeds on site shall be treated by mowing, herbicide, or a combination of both methods, with the intention of preventing the weeds from setting seed or spreading by rhizomes, stolons, or other vegetative means. Noxious weeds shall be treated by spot-spraying or boom spraying, as warranted, with glyphosate, triclopyr, clopyralid, or comparably effective herbicides. If work is carried out by anyone other than the property landowner, all herbicides shall be applied by a licensed applicator, following instructions provided by the manufacturer. The applicator shall know the effective residence

time of herbicides being used and shall apply herbicides so as to avoid inhibiting the germination and growth of the planted native species.

c. Perennial Weeds

Perennial weeds include all unwanted species that persist for 2+ years after germination, from biennials to those that live for many years. Many of these weeds greatly diminish with proper maintenance during the vegetation establishment phase, but several require special attention due to their highly competitive behavior. These include grasses like Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and reed canary grass (*Phalaris arundinacea*). Broadleaf weeds in this category include sweet clovers (*Melilotus alba*, *M. officinalis*), thistles (*Cirsium arvense*, *C. vulgare*), and knapweeds (*Centaurea diffusa*, *C. repens*). A list of common South Dakota perennial weeds that colonize former cropland and compete with native vegetation is provided in Appendix 3.

Mowing is important to prevent seed production (as described above), but herbicide is generally required to prevent the spread of perennial weeds. Perennial grasses shall be treated by spot-spraying or boom spraying, as warranted, with glyphosate or comparably effective herbicide, or the aquatic formulation of the same if near open water. Perennial broadleaf weeds shall be treated by spot-spraying or boom spraying, as warranted, with glyphosate, triclopyr, clopyralid, or comparably effective herbicides. All herbicides shall be applied by a licensed applicator, following instructions provided by the manufacturer.

d. Problematic Native Plants

Several native species that are present in the soil seed bank or enter the site by seed rain from neighboring properties have the potential to interfere with the functioning of the solar panels. Giant ragweed (*Ambrosia trifida*) grows tall enough to shade the panels. Several native vines have the potential to overgrow installations, including wild grape (*Vitis riparia*), wild cucumber (*Echinocystis lobata*), bur cucumber (*Sicyos angulatus*), and woodbine (*Parthenocissus vitacea*). Giant ragweed, or any other native species shading the arrays, should be controlled by mowing (see above). If growing under or near the solar panels, wild cucumber and bur cucumber can be pulled and removed manually, but woody vines such as wild grape and woodbine shall be cut to within 1 inch of the ground and the stump treated with glyphosate, triclopyr, or a comparable herbicide by a licensed applicator, following instructions provided by the manufacturer.

e. Woody Species

Almost all woody species on site can shade or otherwise interfere with the operation of solar panels. During the establishment phase, all woody plants must be removed. This can be done by mowing, herbiciding, or a combination of both methods. All woody plants over 0.5 inches DBH (diameter at breast height, about 4.5 feet) shall be cut to within 1 inch of the ground and the stump treated with triclopyr or a comparable herbicide by a licensed applicator, following instructions provided by the manufacturer. Cut brush shall be removed from the site.

3. Re-seeding Bare Soil

Areas of bare soil are detrimental to successful establishment of native vegetation. Bare soil provides opportunities for the common invasive species described above to colonize and spread. Bare soil also contributes to soil loss by sheet erosion and may prevent Wild Springs Solar from discharging its SWPPP permit in a timely fashion. If areas of bare soil greater than 75 ft² are found on site, the Contractor shall remedy the issue at its own expense by re-seeding the area, using the seed mix previously installed and following the timing instructions laid out in Section II (Vegetation Installation Plan).

B. Perpetual Maintenance Phase

1. Mowing for Perpetual Maintenance

Following the end of the Establishment Phase of vegetation management, yearly management is still required to control the re-establishment and spread of invasive species, combat the establishment of undesirable and invading trees and shrubs, and reduce biomass/fuel load on site. This management may take the form of mowing or haying, depending on Wild Springs' preference and site feasibility. Some degree of hand weeding, spot-mowing, and/or spot-herbicide may be warranted thereafter to maintain vegetation quality and achieve the project goals.

Annual site-wide haying (preferred) or mowing to a height of 6-9 inches shall occur each October, or when prairie plants have gone dormant. Where feasible, mowed vegetation shall be raked, baled, and removed to prevent the buildup of organic thatch, which will discourage the development and persistence of diverse native vegetation. If vegetation removal is not achievable, mowing shall be conducted with a flail-type mower to finely chop plant material and accelerate decomposition. Should Wild Springs enter into a haying partnership for some or all of the site prior to construction, seed mixes will be reviewed and potentially revised to meet the local agricultural needs.

2. Grazing for Perpetual Maintenance

Wild Springs may decide to use grazing with sheep as a long-term vegetation management technique. Well-managed grazing can restrict woody vegetation and non-native species encroachment into grasslands, prevent excessive litter accumulation, improve forage production, and accelerate decomposition and nutrient cycling. Should grazing be selected as a management technique for some or all of the site, an additional section for this Plan will be developed that addresses methodology, stocking rate, water sources, and grazing objectives.

IV. Vegetation Quality Targets

Vegetation management should result in a diverse plant community dominated by native species, as envisioned in the planting plans. Permits and regulations impose additional requirements on the final quality and performance of native plantings.

A. Vegetation Targets

By the end of the first growing season of the vegetation establishment phase, at least 80 percent of the site shall be vegetated. In order to discharge the SWPPP permit for the site, at least 70 percent of the site must be covered with uniform perennial vegetation (note that the party responsible for obtaining

the SWPPP permit should consult with the South Dakota Department of Environment and Natural Resources to confirm the vegetation target for the Project based on the pre-construction and historical vegetation cover); the contractor shall endeavor to achieve this by the end of the first growing season and must achieve this in the second growing season. By the end of the vegetation establishment phase (approximately 36 months after vegetation installation), at least 95 percent of the site shall be vegetated, and at least 90 percent of the cover shall be comprised of native species. Six or more species of planted native graminoids and 12 or more species of planted native forbs shall be well-established across the site.

B. Noxious Weeds and Problem Plants

All South Dakota prohibited noxious weeds and other problem plants (Appendices 2 and 3) shall be treated repeatedly with herbicide and mowed where appropriate at a frequency sufficient to prevent seed set and remove target weeds over time. Each treatment shall show evidence of at least 90 percent of the target vegetation having been affected by herbicide or removed. Two weeks after treatment, at least 95 percent of all herbicided plants shall be dead or dying within any 100 square foot area.

By the end of the vegetation establishment phase (approximately 36 months after vegetation installation), all prohibited noxious weeds and other problem plants shall not exceed 5 percent aerial cover within any 100 square foot area across the site.

V. References

- Clay, Sharon A. 2013. Common broadleaf weeds of South Dakota. *In* iGrow Soybean: Best Management Practices for Soybean Production, Chapter 31, (eds) D.E. Clay, C.G. Carlson, S.A. Clay, L. Wagner, D.Deneke, C. Hay. South Dakota State University Extension, Brookings, SD.
- EDDMapS. 2019. State Report for South Dakota. Accessed February 2020 at https://www.eddmaps.org/tools/statereport.cfm?id=us_sd
- South Dakota Department of Agriculture. 2018. County Noxious Weed & Pest List. Accessed February 2020 at <https://sdda.sd.gov/ag-services/weed-and-pest-control/weed-pest-control/county-noxious-weed-pest-list-and-distribution-maps/default.aspx>
- South Dakota Department of Agriculture. 2018. South Dakota Locally Noxious Weed Pest List. Accessed February 2020 at https://sdda.sd.gov/ag-services/weed-and-pest-control/weed-pest-control/LOCALLY_Noxious%2004162018.pdf
- South Dakota Department of Agriculture. 2018. State Noxious Weed & Pest List. Accessed February 2020 at <https://sdda.sd.gov/ag-services/weed-and-pest-control/weed-pest-control/sd-state-noxious-weed-declared-pest-list-and-distribution-maps/>

Appendix 1. Seed Mixes for Wild Springs Solar

Range Land Array Mix

Scientific Name	Common Name	Oz/Acre	Lbs/Acre	% of mix by weight	Seeds/Sq Ft
<i>Bouteloua curtipendula</i>	Side oats grama	32.00	2.00	24.5	4.41
<i>Bouteloua gracilis</i>	Blue grama grass	4.00	0.25	3.1	3.67
<i>Elymus trachycaulus</i>	Slender wheatgrass	24.00	1.50	18.4	3.80
<i>Koeleria macrantha</i>	June grass	1.00	0.06	0.8	4.59
<i>Nassella viridula</i>	Green needlegrass	16.00	1.00	12.2	2.75
<i>Pascopyrum smithii</i>	Western wheatgrass	16.00	1.00	12.2	2.64
<i>Poa compressa</i>	Canada bluegrass	1.50	0.09	1.2	5.38
<i>Schizachyrium scoparium</i>	Little bluestem	16.00	1.00	12.2	5.51
Graminoids		110.50	6.91	84.5	32.76
<i>Achillea millefolium</i>	Yarrow	0.50	0.03	0.4	2.05
<i>Asclepias verticillata</i>	Whorled milkweed	1.00	0.06	0.8	0.25
<i>Dalea candida</i>	White prairie clover	1.00	0.06	0.8	0.85
<i>Dalea purpurea</i>	Purple prairie clover	4.00	0.25	3.1	1.74
<i>Echinacea angustifolia</i>	Narrow purple coneflower	1.00	0.06	0.8	0.16
<i>Liatris punctata</i>	Dotted blazing star	0.75	0.05	0.6	0.12
<i>Monarda fistulosa</i>	Wild bergamot	1.50	0.09	1.2	2.41
<i>Pulsatilla patens</i>	Pasque flower	0.50	0.03	0.4	0.21
<i>Ratibida columnifera</i>	Upright coneflower	2.00	0.13	1.5	1.93
<i>Rudbeckia hirta</i>	Black-eyed Susan	4.00	0.25	3.1	8.45
<i>Solidago nemoralis</i>	Old-field goldenrod	0.25	0.02	0.2	1.72
<i>Symphyotrichum ericoides</i>	Heath aster	0.20	0.01	0.2	0.92
<i>Tradescantia bracteata</i>	Long-bracted spiderwort	1.00	0.06	0.8	0.23
<i>Verbena stricta</i>	Hoary vervain	1.50	0.09	1.2	0.96
<i>Zizia aptera</i>	Heart-leaved golden alexanders	1.00	0.06	0.8	0.28
Forbs		20.20	1.26	15.5	22.27
Total		130.70	8.17		55.03

Wet Mix

Scientific Name	Common Name	Oz/Acre	Lbs/Acre	% of mix by weight	Seeds/Sq Ft
<i>Carex bebbii</i>	Bebb's sedge	2.00	0.13	1.8	1.56
<i>Carex hystericina</i>	Bottlebrush sedge	4	0.25	3.7	2.75
<i>Carex vulpinoidea</i>	Fox sedge	2	0.13	1.8	4.59
<i>Juncus dudleyi</i>	Dudley's rush	0.06	0.004	0.1	4.41
<i>Nassella viridula</i>	Green needlegrass	32	2.00	29.3	5.51
<i>Pascopyrum smithii</i>	Western wheatgrass	32	2.00	29.3	5.28
<i>Schizachyrium scoparium</i>	Little bluestem	24	1.50	22.0	8.26
Graminoids		96.06	6.00	88.1	32.37
<i>Bidens cernua</i>	Nodding bur marigold	2.5	0.16	2.3	1.21
<i>Lycopus americanus</i>	American water horehound	1	0.06	0.9	2.98
<i>Mentha arvensis</i>	Wild mint	0.25	0.02	0.2	1.72
<i>Monarda fistulosa</i>	Wild bergamot	1	0.06	0.9	1.61
<i>Symphyotrichum lanceolatum</i>	Panicled aster	1.25	0.08	1.1	1.26
<i>Symphyotrichum novae-angliae</i>	New England aster	1	0.06	0.9	1.52
<i>Verbena hastata</i>	Blue vervain	1	0.06	0.9	2.13
<i>Zizia aurea</i>	Golden alexanders	5	0.31	4.6	1.26
Forbs		13	0.81	11.9	13.69
Total		109.06	6.82		46.16

Low-Forb Array Mix – Grazing

Scientific Name	Common Name	Oz/Acre	Lbs/Acre	% of mix by weight	Seeds/Sq Ft
<i>Bouteloua curtipendula</i>	Side oats grama	60.00	3.75	30.3	8.26
<i>Bouteloua gracilis</i>	Blue grama grass	8.00	0.50	4.0	7.35
<i>Elymus trachycaulus</i>	Slender wheatgrass	34.00	2.13	17.2	5.39
<i>Koeleria macrantha</i>	June grass	2.00	0.13	1.0	9.18
<i>Nassella viridula</i>	Green needlegrass	32.00	2.00	16.2	5.51
<i>Pascopyrum smithii</i>	Western wheatgrass	32.00	2.00	16.2	5.28
<i>Poa compressa</i>	Canada bluegrass	2.00	0.13	1.0	7.17
<i>Schizachyrium scoparium</i>	Little bluestem	24.00	1.50	12.1	8.26
Graminoids		194.00	12.13	98.0	56.41
<i>Rudbeckia hirta</i>	<i>Black-eyed Susan</i>	4.00	0.25	2.0	8.45
Forbs		4.00	0.25	2.0	8.45
Total		198.00	12.38		64.86

Appendix 2: State and County Noxious Weeds

South Dakota State Noxious Weeds	
Common Name	Scientific Name
Canada thistle	<i>Cirsium arvense</i>
Hoary cress	<i>Cardaria draba</i>
Leafy spurge	<i>Euphorbia esula</i>
Perennial sow thistle	<i>Sonchus arvensis</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Russian knapweed	<i>Centaurea repens</i>
Salt cedar	<i>Tamarix</i> spp.
County Noxious Weeds (Pennington County)	
Common Name	Scientific Name
Absinth wormwood	<i>Artemisia absinthium</i>
Bull thistle	<i>Cirsium vulgare</i>
Chicory	<i>Cichorium intybus</i>
Common burdock	<i>Arctium minus</i>
Common mullein	<i>Verbascum thapsus</i>
Common tansy	<i>Tanacetum vulgare</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Field bindweed	<i>Convolvulus arvensis</i>
Giant knotweed	<i>Polygonum sachalinense</i>
Hounds tongue	<i>Cynoglossum officinale</i>
Musk thistle	<i>Carduus nutans</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Plumeless thistle	<i>Carduus acanthoides</i>
Poison hemlock	<i>Conium maculate</i>
Puncturevine	<i>Tribulus terrestris</i>
Scotch thistle	<i>Onopordum acanthium</i>
Spotted knapweed	<i>Centaurea maculosa</i>
Sulphur cinquefoil	<i>Potentilla recta</i>
St. John's wort	<i>Hypericum perforatum</i>
Yellow toadflax	<i>Linaria vulgare</i>

Appendix 3. Additional Problem Weeds to Remove

Plant Group & Priority	Common Name	Scientific Name
Top Priority Grasses to Remove	Smooth brome	<i>Bromus inermis</i>
	Reed canary grass	<i>Phalaris arundinacea</i>
	Giant reed	<i>Phragmites australis</i>
	Kentucky bluegrass	<i>Poa pratensis</i>
Top Priority Forbs to Remove	Creeping Charlie	<i>Glechoma hederacea</i>
	Birds-foot trefoil	<i>Lotus corniculatus</i>
	White sweet clover	<i>Melilotus alba</i>
	Yellow sweet clover	<i>Melilotus officinalis</i>
	Japanese knotweed	<i>Polygonum cuspidatum</i>
	Crown vetch	<i>Securigera varia</i>
	Bird vetch	<i>Vicia cracca</i>
	Hairy vetch	<i>Vicia villosa</i>
Weeds Toxic to Livestock	Nightshades	<i>Solanum</i> spp.

Any tree, shrub, or vine outside screening plantings should be removed as well.

Appendix 4. Pennington County Noxious Weed Management Plan


Noxious Weed Management Plan For Wild Springs Solar, LLC – Geronimo Energy

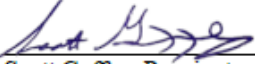
Legal Description: T1N, R10E, Section 1; T1N, R11E, Sections 5,6,7,8,9; T2N, R10E, Section 36; T2N, R11E, Section 31; BHM, Pennington County, South Dakota

The property in question has a history of a Canada Thistle infestation. Canada Thistle is a state declared noxious weed in South Dakota. State law requires landowners to control state and local declared weeds on their property. (SDCL 38-22-16.2) The follow plan is a guideline to control and minimize the spread of any state and local declared noxious weeds on the property and within the county. (38-22-23-10)

1. Any gravel, timber, hay, or any other earthen material removed from the property should be free of noxious weed plant material and/or seeds. (SDCL 38-22-33)
2. Any equipment used in disturbing the ground on the property should be cleaned of any soil or earthen material before leaving the property. (SDCL 38-22-13)
3. Any disturbed ground should be re-seeded with a native or ornamental lawn grass mix. (SDCL 38-22-23.10)
4. Use an intergraded noxious weed plan for controlling existing noxious weeds on the property to prevent the spread onto neighboring properties. (SDCL 38-22-16.2) Contact Pennington County Weed & Pest for proper management recommendations on specific weeds. (SDCL 38-22-23.10)

The above steps meet the requirements of the noxious weed management plan set forth by the Pennington County Weed & Pest Board.


7/16/2020
Applicant, Melissa Schmit - Director, Permitting


07/12/2020
Scott Guffey, Pennington County Natural Resources Director

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